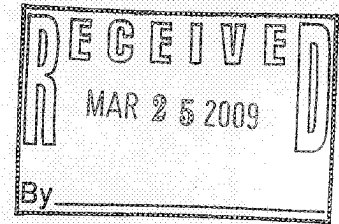




**PIKE TECHNICAL SERVICES, INC.**  
183 Tollage Creek  
Pikeville, Kentucky 41501  
Phone: (606) 432-0300 or Fax: (606) 433-1820



March 24, 2009

Mr. Larry Sowder  
Environmental and Public Protection Cabinet  
Division of Water  
Frankfort Office Park  
14 Reilly Road  
Frankfort, KY 40601

Re: Matt/Co, Inc.  
DNR Permit No. 836-0351 NW

Dear Mr. Sowder:

On behalf of Matt/Co, Inc., I wish to submit for review and processing an individual KPDES for the above referenced mining permit located in Merritt Branch in Floyd County, Kentucky. This permit will have one (1) surface water monitoring point and one (1) sediment pond. I have included KPDES Forms 1, C and HQAA as well as pertinent maps and analyses required for an individual KPDES permit.

Please feel free to contact me if you have any questions or need additional information.

Sincerely,

James Preston  
Project Manager

c: file

# KPDES FORM 1

AZ# 103785

## KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

### PERMIT APPLICATION

This is an application to: (check one)

- ☒ Apply for a new permit.  
☐ Apply for reissuance of expiring permit.  
☐ Apply for a construction permit.  
☐ Modify an existing permit.

Give reason for modification under Item II.A.

A complete application consists of this form and one of the following:

Form A, Form B, Form C, Form F, or Short Form C

For additional information contact:

KPDES Branch (502) 564-3410

ck 240

| I. FACILITY LOCATION AND CONTACT INFORMATION  |  | AGENCY USE   | 0 | 1 | 0 | 7 | 7 | 7 | 8 |
|---|--|--|---|---|---|---|---|---|---|
| A. Name of business, municipality, company, etc. requesting permit<br>MATT/CO, INC. |  |  |   |   |   |   |   |   |   |
| B. Facility Name and Location   |  | C. Facility Owner/Mailing Address                            |   |   |   |   |   |   |   |
| Facility Location Name:<br><br>MATT/CO, INC.  |  | Owner Name:<br><br>MATT/CO, INC.                             |   |   |   |   |   |   |   |
| Facility Location Address (i.e. street, road, etc.):<br><br>MERRITT BRANCH          |  | Mailing Street:<br><br>439 MEADOWS BRANCH                    |   |   |   |   |   |   |   |
| Facility Location City, State, Zip Code:<br><br>PRESTONSBURG, KY 41653              |  | Mailing City, State, Zip Code:<br><br>PRESTONSBURG, KY 41653 |   |   |   |   |   |   |   |
|   |  | Telephone Number:<br>606-886-0611                            |   |   |   |   |   |   |   |

### II. FACILITY DESCRIPTION

A. Provide a brief description of activities, products, etc: This application proposes a surface mining operation in Merritt Branch of Floyd County.

### B. Standard Industrial Classification (SIC) Code and Description

|                                   |             |  |  |
|-----------------------------------|-------------|--|--|
| Principal SIC Code & Description: | 2121 MINING |  |  |
| Other SIC Codes:                  |             |  |  |

### III. FACILITY LOCATION

|   |   |
|---|---|
| A. Attach a U.S. Geological Survey 7 1/2 minute quadrangle map for the site. (See instructions) |   |
| B. County where facility is located:<br>FLOYD   | City where facility is located (if applicable):<br>PRESTONSBURG     |
| C. Body of water receiving discharge:<br>Merritt Branch   |   |
| D. Facility Site Latitude (degrees, minutes, seconds):<br>37° 38' 27"                           | Facility Site Longitude (degrees, minutes, seconds):<br>82° 41' 44" |
| Method used to obtain latitude & longitude (see instructions): LANCER TOPOGRAPHIC MAP           |   |
| F. Facility Dun and Bradstreet Number (DUNS #) (if applicable): N/A                             |   |

**IV. OWNER/OPERATOR INFORMATION****A. Type of Ownership:**☐ Publicly Owned ☒ Privately Owned ☐ State Owned ☐ Both Public and Private Owned ☐ Federally owned**Operator Contact Information (See instructions)**

Name of Treatment Plant Operator:

N/A

Telephone Number:

Operator Mailing Address (Street):

Operator Mailing Address (City, State, Zip Code):

Is the operator also the owner?

Yes ☐ No ☐

Is the operator certified? If yes, list certification class and number below.

Yes ☐ No ☐

Certification Class:

Certification Number:

**V. EXISTING ENVIRONMENTAL PERMITS**

Current NPDES Number:

Issue Date of Current Permit:

Expiration Date of Current Permit:

PENDING

Number of Times Permit Reissued:

Date of Original Permit Issuance:

Sludge Disposal Permit Number:

Kentucky DOW Operational Permit #:

Kentucky DSMRE Permit Number(s):

836-0351

PENDING

**C. Which of the following additional environmental permit/registration categories will also apply to this facility?**

| CATEGORY                                 | EXISTING PERMIT WITH NO. | PERMIT NEEDED WITH<br>PLANNED APPLICATION DATE |
|--|--------------------------|--|
| Emission Source                          | N/A                      |  |
| Solid or Special Waste                   | N/A                      |  |
| Hazardous Waste - Registration or Permit | N/A                      |  |

**VI. DISCHARGE MONITORING REPORTS (DMRs)**

KPDES permit holders are required to submit DMRs to the Division of Water on a regular schedule (as defined by the KPDES permit). The information in this section serves to specifically identify the department, office or individual you designate as responsible for submitting DMR forms to the Division of Water.

**A. Name of department, office or official submitting DMRs:**

CLARK PERGREM

**B. Address where DMR forms are to be sent. (Complete only if address is different from mailing address in Section I.)**

DMR Mailing Name:

MATT/CO, INC.

DMR Mailing Street:

439 MEADOWS BRANCH

DMR Mailing City, State, Zip Code:

PRESTONSBURG, KY 41653

DMR Official Telephone Number:

606-886-0611


## VII. APPLICATION FILING FEE

KPDES regulations require that a permit applicant pay an application filing fee equal to twenty percent of the permit base fee. Please examine the base and filing fees listed below and in the Form 1 instructions and enclose a check payable to "Kentucky State Treasurer" for the appropriate amount. Descriptions of the base fee amounts are given in the "General Instructions."

|                          |                      |
|--------------------------|----------------------|
| Facility Fee Category:   | Filing Fee Enclosed: |
| Surface Mining Operation | \$240.00             |

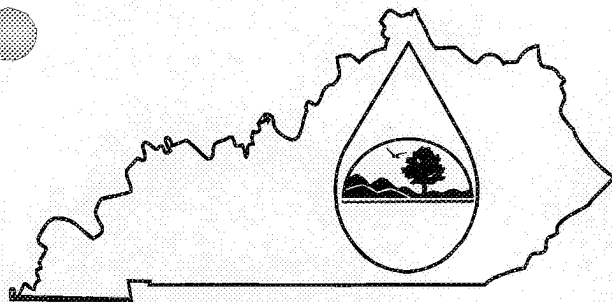
## VIII. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

|   |  |
|---|--|
| NAME AND OFFICIAL TITLE (type or print):  | TELEPHONE NUMBER (area code and number): |
| CLARK PERGEM, PRESIDENT   | 606-886-0611                             |
| SIGNATURE   | DATE:                                    |
|  | March 24, 2009                           |

## KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

### PERMIT APPLICATION



A complete application consists of this form and Form 1.  
For additional information, contact KPDES Branch, (502) 564-3410.

|                                 |                          |
|---------------------------------|--------------------------|
| Name of Facility: MATT/CO, INC. | County: FLOYD            |
| <b>I. OUTFALL LOCATION</b>      | AGENCY USE 0 1 0 7 7 7 8 |

For each outfall list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

| Outfall No.<br>(list) | LATITUDE |         |         | LONGITUDE |         |         | RECEIVING WATER (name) |
|-----------------------|----------|---------|---------|-----------|---------|---------|------------------------|
|                       | Degrees  | Minutes | Seconds | Degrees   | Minutes | Seconds |                        |
| Reference             |          |         |         |           |         |         |                        |
| Attachment I.A        |          |         |         |           |         |         |                        |
|                       |          |         |         |           |         |         |                        |
|                       |          |         |         |           |         |         |                        |

### II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES

- A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfall. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.
- B. For each outfall, provide a description of: (1) all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, and storm water runoff; (2) the average flow contributed by each operation; and (3) the treatment received by the wastewater. Continue on additional sheets if necessary.

| OUTFALL NO.<br>(list) | OPERATION(S) CONTRIBUTING FLOW |                                    | TREATMENT   |                              |
|-----------------------|--------------------------------|------------------------------------|-------------|------------------------------|
|                       | Operation (list)               | Avg/Design Flow<br>(include units) | Description | List Codes from<br>Table C-1 |
| Reference             |                                |                                    |             |                              |
| Attachment II.A       |                                |                                    |             |                              |
|                       |                                |                                    |             |                              |
|                       |                                |                                    |             |                              |
|                       |                                |                                    |             |                              |
|                       |                                |                                    |             |                              |

\*Normal pool based on field measurements.

\*\*Design flow based on 10 year-24 hour storm event.

I. Outfall Location Permit No. 836-0351

| OUTFALL<br>NO. | LATITUDE |         |         | LONGITUDE |         |         | RECEIVING WATER |
|----------------|----------|---------|---------|-----------|---------|---------|-----------------|
|                | Degrees  | Minutes | Seconds | Degrees   | Minutes | Seconds |                 |
| SW-1           | 37       | 38      | 30      | 82        | 41      | 43      | Merritt Branch  |
| 1              | 37       | 38      | 45      | 82        | 41      | 56      | Merritt Branch  |
| 2              | 37       | 38      | 42      | 82        | 41      | 49      | Merritt Branch  |
| 3              | 37       | 38      | 38      | 82        | 41      | 42      | Merritt Branch  |
| 4              | 37       | 38      | 46      | 82        | 41      | 35      | Merritt Branch  |
| 5              | 37       | 38      | 45      | 82        | 41      | 25      | Merritt Branch  |
| 6              | 37       | 38      | 42      | 82        | 41      | 18      | Merritt Branch  |
| 7              | 37       | 38      | 35      | 85        | 41      | 21      | Merritt Branch  |
| 8              | 37       | 38      | 32      | 82        | 41      | 30      | Merritt Branch  |
| 9              | 37       | 38      | 25      | 82        | 41      | 36      | Merritt Branch  |
|                |          |         |         |           |         |         |                 |
|                |          |         |         |           |         |         |                 |
|                |          |         |         |           |         |         |                 |
|                |          |         |         |           |         |         |                 |
|                |          |         |         |           |         |         |                 |
|                |          |         |         |           |         |         |                 |
|                |          |         |         |           |         |         |                 |
|                |          |         |         |           |         |         |                 |
|                |          |         |         |           |         |         |                 |
|                |          |         |         |           |         |         |                 |



## Permit No. 836-0351

Design flow based on 10 year-24 hour storm event

**II. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES (Continued)**

C. Except for storm water runoff, leaks, or spills, are any of the discharges described in Items II-A or B intermittent or seasonal?

☐

Yes (Complete the following table.)

☒

No (Go to Section III.)

| OUTFALL<br>NUMBER | OPERATIONS<br>CONTRIBUTING<br>FLOW | FREQUENCY            |                       | FLOW                  |                  |                                      |                  | Duration<br>(in days) |
|-------------------|------------------------------------|----------------------|-----------------------|-----------------------|------------------|--------------------------------------|------------------|-----------------------|
|                   |                                    | Days<br>Per Week     | Months<br>Per<br>Year | Flow Rate<br>(in mgd) |                  | Total volume<br>(specify with units) |                  |                       |
|                   |                                    |                      |                       | Long-Term<br>Average  | Maximum<br>Daily | Long-Term<br>Average                 | Maximum<br>Daily |                       |
| (list)            | (list)                             | (specify<br>average) | (specify<br>average)  |                       |                  |                                      |                  |                       |
|                   |                                    |                      |                       |                       |                  |                                      |                  |                       |

**III. MAXIMUM PRODUCTION**

A. Does an effluent guideline limitation promulgated by EPA under Section 304 of the Clean Water Act apply to your facility?

☐

Yes (Complete Item III-B) List effluent guideline category:

☒

No (Go to Section IV)

B. Are the limitations in the applicable effluent guideline expressed in terms of production (or other measures of operation)?

☐

Yes (Complete Item III-C)

☒

No (Go to Section IV)

If you answered "Yes" to Item III-B, list the quantity which represents the actual measurement of your maximum level of production, expressed in the terms and units used in the applicable effluent guideline, and indicate the affected outfalls.

| MAXIMUM QUANTITY |                  |   | Affected Outfalls<br>(list outfall numbers) |
|------------------|------------------|---|---|
| Quantity Per Day | Units of Measure | Operation, Product, Material, Etc.<br>(specify) |   |
|                  |                  |   |   |

**IV. IMPROVEMENTS**

A. Are you now required by any federal, state or local authority to meet any implementation schedule for the construction, upgrading, or operation of wastewater equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders and grant or loan conditions.

☐

Yes (Complete the following table)

☒

No (Go to Item IV-B)

| IDENTIFICATION OF CONDITION<br>AGREEMENT, ETC. | AFFECTED OUTFALLS |                     | BRIEF DESCRIPTION OF PROJECT | FINAL COMPLIANCE DATE |           |
|--|-------------------|---------------------|------------------------------|-----------------------|-----------|
|  | No.               | Source of Discharge |                              | Required              | Projected |
|  |                   |                     |                              |                       |           |

OPTIONAL: You may attach additional sheets describing any additional water pollution control programs (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.



## V. INTAKE AND EFFLUENT CHARACTERISTICS

A, B, & C: See instructions before proceeding – Complete one set of tables for each outfall – Annotate the outfall number in the space provided.

NOTE: Tables V-A, V-B, and V-C are included on separate sheets numbered 5-18.

D. Use the space below to list any of the pollutants (refer to SARA Title III, Section 313) listed in Table C-3 of the instructions, which you know or have reason to believe is discharged or may be discharged from any outfall. For every pollutant you list, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

| POLLUTANT | SOURCE | POLLUTANT | SOURCE |
|-----------|--------|-----------|--------|
|           |        |           |        |

## VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. Is any pollutant listed in Item V-C a substance or a component of a substance which you use or produce, or expect to use or produce over the next 5 years as an immediate or final product or byproduct?

☐ Yes (List all such pollutants below)

☒ No (Go to Item VI-B)

B. Are your operations such that your raw materials, processes, or products can reasonably be expected to vary so that your discharge of pollutants may during the next 5 years exceed two times the maximum values reported in Item V?

☐ Yes (Complete Item VI-C)


☒ No (Go to Item VII)

C. If you answered "Yes" to Item VI-B, explain below and describe in detail to the best of your ability at this time the sources and expected levels of such pollutants which you anticipate will be discharged from each outfall over the next 5 years. Continue on additional sheets if you need more space.

## VII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge of or reason to believe that any biological test for acute or chronic toxicity has been/made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes (Identify the test(s) and describe their purposes below)

☒ No (Go to Section VIII)

Draw a picture of your favorite animal.

## VIII. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in Item V performed by a contract laboratory or consulting firm?

☒ Yes (list the name, address, and telephone number of, and pollutants analyzed by each such laboratory or firm below)

☐ No (Go to Section IX)

| NAME                                     | ADDRESS                             | TELEPHONE<br>(Area code & number) | POLLUTANTS<br>ANALYZED (list)                          |
|--|-------------------------------------|-----------------------------------|--|
| Appalachian States<br>Analytical, L.L.C. | P.O. Box 520<br>Shelbiana, KY 41562 | 606-437-5616                      | pH, Suspended Solids,<br>Sulfate, Manganese,<br>Metals |

## IX. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

|   |  |
|---|--|
| NAME AND OFFICIAL TITLE (type or print):  | TELEPHONE NUMBER (area code and number): |
| CLARK PERGEM, PRESIDENT   | 606-886-0611                             |
| SIGNATURE  | DATE                                     |
|   | March 24, 2009                           |

PLEASE PRINT OR TYPE IN THE UNSHADED AREAS ONLY. You may report some or all of this information on separate sheets (use the same format) instead of completing these pages. (See instructions)

| V. INTAKE AND EFFLUENT CHARACTERISTICS (Continued from page 3 of Form C)   |                        |         |   |         |   |      |                          |                                |            |                            | OUTFALL NO. |                         |
|--|------------------------|---------|---|---------|---|------|--------------------------|--------------------------------|------------|----------------------------|-------------|-------------------------|
| Part A -- You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details. |                        |         |   |         |   |      |                          |                                |            |                            |             |                         |
| I.<br>POLLUTANT  | 2. EFFLUENT            |         |   |         |   |      |                          | 3. UNITS<br>(specify if blank) |            | 4. INTAKE<br>(optional)    |             |                         |
|  | a. Maximum Daily Value |         | b. Maximum 30-Day Value<br>(if available) |         | c. Long-Term Avg. Value<br>(if available) |      | d.<br>No. of<br>Analyses | a.<br>Concentration            | b.<br>Mass | a.<br>Long-Term Avg. Value |             | b.<br>No of<br>Analyses |
|  | (1)                    | (2)     | (1)                                       | (2)     | (1)                                       | (2)  |                          |                                |            | (1)                        | (2)         |                         |
|  | Concentration          | Mass    | Concentration                             | Mass    | Concentration                             | Mass |                          |                                |            | Concentration              | Mass        |                         |
| a. Biochemical Oxygen Demand (BOD)   | ---                    |         |   |         |   |      |                          |                                |            |                            |             |                         |
| b. Chemical Oxygen Demand (COD)  | ---                    |         |   |         |   |      |                          |                                |            |                            |             |                         |
| c. Total Organic Carbon (TOC)  | ---                    |         |   |         |   |      |                          |                                |            |                            |             |                         |
| d. Total Suspended Solids (TSS)  | 14.0                   |         |   |         |   |      |                          |                                |            |                            |             |                         |
| e. Ammonia (as N)  | ---                    |         |   |         |   |      |                          |                                |            |                            |             |                         |
| f. Flow (in units of MGD)  | VALUE                  |         | VALUE                                     |         | VALUE                                     |      |                          | MGD                            |            | VALUE                      |             |                         |
| g. Temperature (winter)  | VALUE                  |         | VALUE                                     |         | VALUE                                     |      |                          | °C                             |            | VALUE                      |             |                         |
| h. Temperature (summer)  | VALUE                  |         | VALUE                                     |         | VALUE                                     |      |                          | °C                             |            | VALUE                      |             |                         |
| i. pH  | MINIMUM<br>7.04        | MAXIMUM | MINIMUM                                   | MAXIMUM |   |      |                          | STANDARD UNITS                 |            |                            |             |                         |

Part B - In the Mark "X" column, place an "X" in the Believed Present column for each pollutant you know or have reason to believe is present. Place an "X" in the Believed Absent column for each pollutant you believe to be absent. If you mark the Believed Present column for any pollutant, you must provide the results of at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

| 1.<br>POLLUTANT<br>AND CAS NO.<br><br>(if available) | 2.<br>MARK "X"            |                          | 3.<br>EFFLUENT         |             |   |             |   |             |                          |                     | 4.<br>UNITS |                           | 6.<br>INTAKE (optional) |                          |  |
|--|---------------------------|--------------------------|------------------------|-------------|---|-------------|---|-------------|--------------------------|---------------------|-------------|---------------------------|-------------------------|--------------------------|--|
|  | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a. Maximum Daily Value |             | b. Maximum 30-Day<br>Value (If available) |             | c. Long-Term Avg.<br>Value (If available) |             | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass  | a. Long-Term Avg<br>Value |                         | b.<br>No. of<br>Analyses |  |
|  |                           |                          | (1)<br>Concentration   | (2)<br>Mass | (1)<br>Concentration                      | (2)<br>Mass | (1)<br>Concentration                      | (2)<br>Mass |                          |                     |             | (1)<br>Concentration      | (2)<br>Mass             |                          |  |
|  |                           |                          |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| a. Bromide<br>(24959-67-9)                           |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| b. Bromine<br>Total<br>Residual                      |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| c. Chloride  |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| d. Chlorine,<br>Total<br>Residual                    |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| e. Color   |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| f. Fecal<br>Coliform                                 |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| g. Fluoride<br>(16984-48-8)                          |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| h. Hardness<br>(as CaCO <sub>3</sub> )               | X                         |                          | 428.37                 |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| i. Nitrate --<br>Nitrite (as N)                      |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| j. Nitrogen,<br>Total<br>Organic<br>(as N)           |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| k. Oil and<br>Grease                                 |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| l. Phosphorous<br>(as P), Total<br>7723-14-0         |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| m.<br>Radioactivity                                  |                           |                          |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| (1) Alpha,<br>Total                                  |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| (2) Beta,<br>Total                                   |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| (3) Radium<br>Total                                  |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |
| (4) Radium,<br>226, Total                            |                           | X                        |                        |             |   |             |   |             |                          |                     |             |                           |                         |                          |  |

| Part B - Continued                                   |                           |                          |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
|--|---------------------------|--------------------------|---------------------------|-------------|---|-------------|---|-------------|--------------------------|---------------------|------------|----------------------------|-------------|--------------------------|
| 1.<br>POLLUTANT<br>And CAS NO.<br><br>(if available) | 2.<br>MARK "X"            |                          | 3.<br>EFFLUENT            |             |   |             |   |             |                          | 4.<br>UNITS         |            | 5.<br>INTAKE (optional)    |             |                          |
|  | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |             | b. Maximum 30-Day<br>Value (if available) |             | c. Long-Term Avg.<br>Value (if available) |             | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass | a.<br>Long-Term Avg. Value |             | b.<br>No. of<br>Analyses |
|  |                           |                          | (1)<br>Concentration      | (2)<br>Mass | (1)<br>Concentration                      | (2)<br>Mass | (1)<br>Concentration                      | (2)<br>Mass |                          |                     |            | (1)<br>Concentration       | (2)<br>Mass |                          |
|  |                           |                          |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
| n. Sulfate<br>(as SO <sub>4</sub> )<br>(14808-79-8)  | X                         |                          | 357                       |             |   |             |   |             |                          |                     |            |                            |             |                          |
| o. Sulfide<br>(as S)                                 |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
| p. Sulfite<br>(as SO <sub>4</sub> )<br>(14286-46-3)  |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
| q. Surfactants                                       |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
| r. Aluminum, Total<br>(7429-90)                      |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
| s. Barium, Total<br>(7440-39-3)                      |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
| t. Boron, Total<br>(7440-42-8)                       |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
| u. Cobalt, Total<br>(7440-48-4)                      |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
| v. Iron, Total<br>(7439-89-6)                        | X                         |                          | <0.03                     |             |   |             |   |             |                          |                     |            |                            |             |                          |
| w. Magnesium<br>Total<br>(7439-96-4)                 |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
| x. Molybdenum<br>Total<br>(7439-98-7)                |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
| y. Manganese,<br>Total<br>(7439-96-6)                | X                         |                          | 0.05                      |             |   |             |   |             |                          |                     |            |                            |             |                          |
| z. Tin, Total<br>(7440-31-5)                         |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |
| aa. Titanium,<br>Total<br>(7440-32-6)                |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                            |             |                          |

**Part C** – If you are a primary industry and this outfall contains process wastewater, refer to Table C-2 in the instructions to determine which of the GC/MS fractions you must test for. Mark “X” in the **Testing Required** column for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. If you are not required to mark this column (secondary industries, nonprocess wastewater outfalls, and non-required GC/MS fractions), mark “X” in the **Believed Present** column for each pollutant you know or have reason to believe is present. Mark “X” in the **Believed Absent** column for each pollutant you believe to be absent. If you mark either the **Testing Required** or **Believed Present** columns for any pollutant, you must provide the result of at least one analysis for that pollutant. Note that there are seven pages to this part; please review each carefully. Complete one table (all seven pages) for each outfall. See instructions for additional details and requirements.

| 1.<br>POLLUTANT<br>And CAS NO.<br><br>(if available) | 2.<br>MARK "X"            |                           |                          | 3.<br>EFFLUENT            |      |   |      |   |      |                          |                     | 4.<br>UNITS |                           | 5.<br>INTAKE (optional) |                          |  |
|--|---------------------------|---------------------------|--------------------------|---------------------------|------|---|------|---|------|--------------------------|---------------------|-------------|---------------------------|-------------------------|--------------------------|--|
|  | a.<br>Testing<br>Required | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |      | b. Maximum 30-Day<br>Value (if available) |      | c. Long-Term Avg.<br>Value (if available) |      | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass  | a.<br>Long-Term Avg Value |                         | b.<br>No. of<br>Analyses |  |
|  |                           |                           |                          | (1)                       | (2)  | (1)                                       | (2)  | (1)                                       | (2)  |                          |                     |             | (1)                       | (2)                     |                          |  |
|  |                           |                           |                          | Concentration             | Mass | Concentration                             | Mass | Concentration                             | Mass |                          |                     |             | Concentration             | Mass                    |                          |  |
| METALS, CYANIDE AND TOTAL PHENOLS                    |                           |                           |                          |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 1M. Antimony<br>Total<br>(7440-36-0)                 | X                         |                           |                          | <0.002                    |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 2M. Arsenic,<br>Total<br>(7440-38-2)                 | X                         |                           |                          | <0.001                    |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 3M. Beryllium<br>Total<br>(7440-41-7)                | X                         |                           |                          | <0.005                    |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 4M. Cadmium<br>Total<br>(7440-43-9)                  | X                         |                           |                          | <0.005                    |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 5M. Chromium<br>Total<br>(7440-43-9)                 | X                         |                           |                          | 0.001                     |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 6M. Copper<br>Total<br>(7550-50-8)                   | X                         |                           |                          | <0.01                     |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 7M. Lead<br>Total<br>(7439-92-1)                     | X                         |                           |                          | <0.05                     |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 8M. Mercury<br>Total<br>(7439-97-6)                  | X                         |                           |                          | <0.0002                   |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 9M. Nickel,<br>Total<br>(7440-02-0)                  | X                         |                           |                          | <0.005                    |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 10M. Selenium,<br>Total<br>(7782-49-2)               | X                         |                           |                          | <0.002                    |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 11M. Silver,<br>Total<br>(7440-28-0)                 | X                         |                           |                          | <0.01                     |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |



| Part C - Continue  |                           |                           |                          | 3. EFFLUENT               |             |   |             |   |             |                          |                     | 4. UNITS   |                           | 5. INTAKE (optional) |                          |  |  |
|--|---------------------------|---------------------------|--------------------------|---------------------------|-------------|---|-------------|---|-------------|--------------------------|---------------------|------------|---------------------------|----------------------|--------------------------|--|--|
| 1. POLLUTANT<br>And CAS NO.<br>(if available)                | 2. MARK "X"               |                           |                          |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
|  | a.<br>Testing<br>Required | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |             | b. Maximum 30-Day<br>Value (if available) |             | c. Long-Term Avg.<br>Value (if available) |             | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass | a.<br>Long-Term Avg Value |                      | b.<br>No. of<br>Analyses |  |  |
|  |                           |                           |                          | (1)<br>Concentration      | (2)<br>Mass | (1)<br>Concentration                      | (2)<br>Mass | (1)<br>Concentration                      | (2)<br>Mass |                          |                     |            | (1)<br>Concentration      | (2)<br>Mass          |                          |  |  |
| <b>METALS, CYANIDE AND TOTAL PHENOLS (Continued)</b>         |                           |                           |                          |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 12M. Thallium,<br>Total<br>(7440-28-0)                       | X                         |                           |                          | <0.05                     |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 13M. Zinc,<br>Total<br>(7440-66-6)                           | X                         |                           |                          | <0.005                    |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 14M. Cyanide,<br>Total<br>(57-12-5)                          |                           |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 15M. Phenols,<br>Total                                       |                           |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| <b>DIOXIN</b>  |                           |                           |                          |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 2,3,7,8 Tetra-<br>chlorodibenzo,<br>P, Dioxin<br>(1784-01-6) |                           |                           | X                        | DESCRIBE RESULTS:         |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| <b>GC/MS FRACTION - VOLATILE COMPOUNDS</b>                   |                           |                           |                          |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 1V. Acrolein<br>(107-02-8)                                   |                           |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 2V. Acrylonitrile<br>(107-13-1)                              |                           |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 3V. Benzene<br>(71-43-2)                                     |                           |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 5V. Bromoform<br>(75-25-2)                                   |                           |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 6V. Carbon<br>Tetrachloride<br>(56-23-5)                     |                           |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 7V. Chloro-<br>benzene<br>(108-90-7)                         |                           |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |
| 8V. Chlorodibro-<br>momethane<br>(124-48-1)                  |                           |                           | X                        |                           |             |   |             |   |             |                          |                     |            |                           |                      |                          |  |  |

| Part C – Continued                                   |                           |                           |                          |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
|--|---------------------------|---------------------------|--------------------------|---------------------------|------|---|------|---|------|--------------------------|---------------------|------------|---------------------------|------|--------------------------|
| 1.<br>POLLUTANT<br>And CAS NO.<br><br>(if available) | 2.<br>MARK "X"            |                           |                          | 3.<br>EFFLUENT            |      |   |      |   |      |                          | 4.<br>UNITS         |            | 5.<br>INTAKE (optional)   |      |                          |
|  | a.<br>Testing<br>Required | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |      | b. Maximum 30-Day<br>Value (if available) |      | c. Long-Term Avg.<br>Value (if available) |      | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass | a.<br>Long-Term Avg Value |      | b.<br>No. of<br>Analyses |
|  |                           |                           |                          | (1)                       | (2)  | (1)                                       | (2)  | (1)                                       | (2)  |                          |                     |            | (1)                       | (2)  |                          |
|  |                           |                           |                          | Concentration             | Mass | Concentration                             | Mass | Concentration                             | Mass |                          |                     |            | Concentration             | Mass |                          |
| 9V. Chloroethane<br>(74-00-3)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 10V. 2-Chloro-<br>ethylvinyl Ether<br>(110-75-8)     |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 11V. Chloroform<br>(67-66-3)                         |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 12V. Dichloro-<br>bromomethane<br>(75-71-8)          |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 14V. 1,1-<br>Dichloroethane<br>(75-34-3)             |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 15V. 1,2-<br>Dichloroethane<br>(107-06-2)            |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 16V. 1,1-<br>Dichlorethylene<br>(75-35-4)            |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 17V. 1,2-Di-<br>chloropropane<br>(78-87-5)           |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 18V. 1,3-<br>Dichloropro-<br>pylene<br>(452-75-6)    |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 19V. Ethyl-<br>benzene<br>(100-41-4)                 |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 20V. Methyl<br>Bromide<br>(74-83-9)                  |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |

| Part C – Continued                                     |                           |                           |                          |                           |      |   |      |   |      |                          |                     |            |                            |      |                          |
|--|---------------------------|---------------------------|--------------------------|---------------------------|------|---|------|---|------|--------------------------|---------------------|------------|----------------------------|------|--------------------------|
| 1.<br>POLLUTANT<br>And CAS NO.<br><br>(If available)   | 2.<br>MARK "X"            |                           |                          | 3.<br>EFFLUENT            |      |   |      |   |      |                          | 4.<br>UNITS         |            | 5.<br>INTAKE (optional)    |      |                          |
|  | a.<br>Testing<br>Required | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |      | b. Maximum 30-Day<br>Value (if available) |      | c. Long-Term Avg.<br>Value (if available) |      | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass | a.<br>Long-Term Avg. Value |      | b.<br>No. of<br>Analyses |
|  |                           |                           |                          | (1)                       | (2)  | (1)                                       | (2)  | (1)                                       | (2)  |                          |                     |            | (1)                        | (2)  |                          |
|  |                           |                           |                          | Concentration             | Mass | Concentration                             | Mass | Concentration                             | Mass |                          |                     |            | Concentration              | Mass |                          |
| 21V. Methyl<br>Chloride<br>(74-87-3)                   |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                            |      |                          |
| 22V. Methylene<br>Chloride<br>(75-00-2)                |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                            |      |                          |
| 23V. 1,1,2,2-<br>Tetrachloro-<br>ethane<br>(79-34-5)   |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                            |      |                          |
| 24V.<br>Tetrachloro-<br>ethylene<br>(127-18-4)         |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                            |      |                          |
| 25V. Toluene<br>(108-88-3)                             |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                            |      |                          |
| 26V. 1,2-Trans-<br>Dichloro-<br>ethylene<br>(156-60-5) |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                            |      |                          |
| 27V. 1,1,1-Tri-<br>chloroethane<br>(71-55-6)           |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                            |      |                          |
| 28V. 1,1,2-Tri-<br>chloroethane<br>(79-00-5)           |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                            |      |                          |
| 29V. Trichloro-<br>ethylene<br>(79-01-6)               |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                            |      |                          |
| 30V. Vinyl<br>Chloride<br>(75-01-4)                    |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                            |      |                          |

Part C – Continued

| 1.<br>POLLUTANT<br>And CAS NO.<br><br>(if available) | 2.<br>MARK "X"            |                           |                          | 3.<br>EFFLUENT            |      |   |      |   |      |                          |                     | 4.<br>UNITS |                           | 5.<br>INTAKE (optional) |                          |  |
|--|---------------------------|---------------------------|--------------------------|---------------------------|------|---|------|---|------|--------------------------|---------------------|-------------|---------------------------|-------------------------|--------------------------|--|
|  | a.<br>Testing<br>Required | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |      | b. Maximum 30-Day<br>Value (if available) |      | c. Long-Term Avg.<br>Value (if available) |      | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass  | a.<br>Long-Term Avg Value |                         | b.<br>No. of<br>Analyses |  |
|  |                           |                           |                          | (1)                       | (2)  | (1)                                       | (2)  | (1)                                       | (2)  |                          |                     |             | (1)                       | (2)                     |                          |  |
|  |                           |                           |                          | Concentration             | Mass | Concentration                             | Mass | Concentration                             | Mass |                          |                     |             | Concentration             | Mass                    |                          |  |
| GC/MS FRACTION – ACID COMPOUNDS                      |                           |                           |                          |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 1A. 2-Chloro-phenol<br>(95-57-8)                     |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 2A. 2,4-Dichlor-Orophenol<br>(120-83-2)              |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 3A. 2,4-Dimeth-ylphenol<br>(105-67-9)                |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 4A. 4,6-Dinitro-o-cresol<br>(534-52-1)               |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 5A. 2,4-Dinitro-phenol<br>(51-28-5)                  |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 6A. 2-Nitro-phenol<br>(88-75-5)                      |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 7A. 4-Nitro-phenol<br>(100-02-7)                     |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 8A. P-chloro-m-cresol<br>(59-50-7)                   |                           |                           |                          |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 9A. Pentachloro-phenol<br>(87-88-5)                  |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 10A. Phenol<br>(108-05-2)                            |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 11A. 2,4,6-Tri-chlorophenol<br>(88-06-2)             |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS              |                           |                           |                          |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |
| 1B. Acena-phthene<br>(83-32-9)                       |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |  |

| Part C -- Continued   |                           |                           |                          |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
|---|---------------------------|---------------------------|--------------------------|---------------------------|------|---|------|---|------|--------------------------|---------------------|------------|---------------------------|------|--------------------------|
| 1.<br>POLLUTANT<br>And CAS NO.<br><br>(if available)        | 2.<br>MARK "X"            |                           |                          | 3.<br>EFFLUENT            |      |   |      |   |      |                          | 4.<br>UNITS         |            | 5.<br>INTAKE (optional)   |      |                          |
|   | a.<br>Testing<br>Required | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |      | b. Maximum 30-Day<br>Value (if available) |      | c. Long-Term Avg.<br>Value (if available) |      | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass | a.<br>Long-Term Avg Value |      | b.<br>No. of<br>Analyses |
|   |                           |                           |                          | (1)                       | (2)  | (1)                                       | (2)  | (1)                                       | (2)  |                          |                     |            | (1)                       | (2)  |                          |
|   |                           |                           |                          | Concentration             | Mass | Concentration                             | Mass | Concentration                             | Mass |                          |                     |            | Concentration             | Mass |                          |
| GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS (Continued)        |                           |                           |                          |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 2B. Acena-<br>phtylene<br>(208-96-8)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 3B. Anthra-<br>cene<br>(120-12-7)                           |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 4B. Benzidine<br>(92-87-5)                                  |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 5B. Benzo(a)-<br>anthracene<br>(56-55-3)                    |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 6B. Benzo(a)-<br>pyrene<br>(50-32-8)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 7B. 3,4-Benzo-<br>fluoranthene<br>(205-99-2)                |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 8B. Benzo(ghi)<br>perylene<br>(191-24-2)                    |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 9B. Benzo(k)-<br>fluoranthene<br>(207-08-9)                 |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 10B. Bis(2-<br>chlor-<br>oethoxy)-<br>methane<br>(111-91-1) |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 11B. Bis<br>(2-chlor-<br>oisopropyl)-<br>Ether              |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 12B. Bis<br>(2-ethyl-<br>hexyl)-<br>phthalate<br>(117-81-7) |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |

| Part C -- Continued                                  |                           |                           |                          |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
|--|---------------------------|---------------------------|--------------------------|---------------------------|------|---|------|---|------|--------------------------|---------------------|-------------|---------------------------|-------------------------|--------------------------|------|
| 1.<br>POLLUTANT<br>And CAS NO.<br><br>(if available) | 2.<br>MARK "X"            |                           |                          | 3.<br>EFFLUENT            |      |   |      |   |      |                          |                     | 4.<br>UNITS |                           | 5.<br>INTAKE (optional) |                          |      |
|  | a.<br>Testing<br>Required | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |      | b. Maximum 30-Day<br>Value (if available) |      | c. Long-Term Avg.<br>Value (if available) |      | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass  | a.<br>Long-Term Avg Value |                         | b.<br>No. of<br>Analyses |      |
|  |                           |                           |                          | (1)                       | (2)  | (1)                                       | (2)  | (1)                                       | (2)  |                          |                     |             | (1)                       | (2)                     |                          |      |
|  |                           |                           |                          | Concentration             | Mass | Concentration                             | Mass | Concentration                             | Mass |                          |                     |             | Concentration             | Mass                    | Concentration            | Mass |
| GC/MS FRACTION -- BASE/NEUTRAL COMPOUNDS (Continued) |                           |                           |                          |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
| 13B. 4-Bromo-phenyl<br>Phenyl ether<br>(101-55-3)    |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
| 14B. Butyl-benzyl<br>phthalate<br>(85-68-7)          |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
| 15B. 2-Chloro-naphthalene<br>(7005-72-3)             |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
| 16B. 4-Chloro-phenyl<br>phenyl ether<br>(7005-72-3)  |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
| 17B. Chrysene<br>(218-01-9)                          |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
| 18B. Dibenzo-(a,h)<br>Anthracene<br>(53-70-3)        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
| 19B. 1,2-Dichloro-benzene<br>(95-50-1)               |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
| 20B. 1,3-Dichloro-Benzene<br>(541-73-1)              |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
| 21B. 1,4-Dichloro-benzene<br>(106-46-7)              |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
| 22B. 3,3-Dichloro-benzidene<br>(91-94-1)             |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |
| 23B. Diethyl Phthalate<br>(84-66-2)                  |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                           |                         |                          |      |



| Part C – Continued  |                           |                           |                          |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
|---|---------------------------|---------------------------|--------------------------|---------------------------|------|---|------|---|------|--------------------------|---------------------|-------------|----------------------------|-------------------------|--------------------------|--|
| 1.<br>POLLUTANT<br>And CAS NO.<br><br>(if available)                  | 2.<br>MARK "X"            |                           |                          | 3.<br>EFFLUENT            |      |   |      |   |      |                          |                     | 4.<br>UNITS |                            | 5.<br>INTAKE (optional) |                          |  |
|   | a.<br>Testing<br>Required | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |      | b. Maximum 30-Day<br>Value (if available) |      | c. Long-Term Avg.<br>Value (if available) |      | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass  | a.<br>Long-Term Avg. Value |                         | b.<br>No. of<br>Analyses |  |
|   |                           |                           |                          | (1)                       | (2)  | (1)                                       | (2)  | (1)                                       | (2)  |                          |                     |             | (1)                        | (2)                     |                          |  |
|   |                           |                           |                          | Concentration             | Mass | Concentration                             | Mass | Concentration                             | Mass |                          |                     |             | Concentration              | Mass                    |                          |  |
| GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (Continued)                   |                           |                           |                          |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 24B. Dimethyl<br>Phthalate<br>(131-11-3)                              |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 25B. Di-N-<br>butyl Phthalate<br>(84-74-2)                            |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 26B.<br>2,4-Dinitro-<br>toluene<br>(121-14-2)                         |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 27B.<br>2,6-Dinitro-<br>toluene<br>(606-20-2)                         |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 28B. Di-n-octyl<br>Phthalate<br>(117-84-0)                            |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 29B. 1,2-<br>diphenyl-<br>hydrazine (as<br>azonbenzene)<br>(122-66-7) |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 30B.<br>Fluoranthene<br>(208-44-0)                                    |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 31B. Fluorene<br>(86-73-7)  |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 32B.<br>Hexachloro-<br>benzene<br>(118-71-1)                          |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 33B.<br>Hexachloro-<br>butadiene<br>(87-68-3)                         |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 34B.<br>Hexachloro-<br>cyclopenta-<br>diene<br>(77-47-4)              |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |

| Part C – Continued                                  |                           |                           |                          |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
|---|---------------------------|---------------------------|--------------------------|---------------------------|------|---|------|---|------|--------------------------|---------------------|------------|---------------------------|------|--------------------------|
| 1.<br>POLLUTANT<br>And CAS NO.<br>(if available)    | 2.<br>MARK “X”            |                           |                          | 3.<br>EFFLUENT            |      |   |      |   |      |                          | 4.<br>UNITS         |            | 5.<br>INTAKE (optional)   |      |                          |
|   | a.<br>Testing<br>Required | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |      | b. Maximum 30-Day<br>Value (if available) |      | c. Long-Term Avg.<br>Value (if available) |      | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass | a.<br>Long-Term Avg Value |      | b.<br>No. of<br>Analyses |
|   |                           |                           |                          | (1)                       | (2)  | (1)                                       | (2)  | (1)                                       | (2)  |                          |                     |            | (1)                       | (2)  |                          |
|   |                           |                           |                          | Concentration             | Mass | Concentration                             | Mass | Concentration                             | Mass |                          |                     |            | Concentration             | Mass |                          |
| GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (Continued) |                           |                           |                          |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 35B. Hexachloroethane<br>(67-72-1)                  |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 36B. Indneo-(1,2,3-oc)-Pyrene<br>(193-39-5)         |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 37B. Isophorone<br>(78-59-1)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 38B. Napthalene<br>(91-20-3)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 39B. Nitrobenzene<br>(98-95-3)                      |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 40B. N-Nitroso-dimethylamine<br>(62-75-9)           |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 41B. N-nitrosodi-n-propylamine<br>(621-64-7)        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 42B. N-nitrosodiphenylamine<br>(86-30-6)            |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 43B. Phenanthrene<br>(85-01-8)                      |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 44B. Pyrene<br>(129-00-0)                           |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 45B. 1,2,4 Trichlorobenzene<br>(120-82-1)           |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |

| Part C – Continued                                   |                           |                           |                          |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
|--|---------------------------|---------------------------|--------------------------|---------------------------|------|---|------|---|------|--------------------------|---------------------|-------------|----------------------------|-------------------------|--------------------------|--|
| 1.<br>POLLUTANT<br>And CAS NO.<br><br>(if available) | 2.<br>MARK "X"            |                           |                          | 3.<br>EFFLUENT            |      |   |      |   |      |                          |                     | 4.<br>UNITS |                            | 5.<br>INTAKE (optional) |                          |  |
|  | a.<br>Testing<br>Required | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |      | b. Maximum 30-Day<br>Value (if available) |      | c. Long-Term Avg.<br>Value (if available) |      | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass  | a.<br>Long-Term Avg. Value |                         | b.<br>No. of<br>Analyses |  |
|  |                           |                           |                          | (1)                       | (2)  | (1)                                       | (2)  | (1)                                       | (2)  |                          |                     |             | (1)                        | (2)                     |                          |  |
|  |                           |                           |                          | Concentration             | Mass | Concentration                             | Mass | Concentration                             | Mass |                          |                     |             | Concentration              | Mass                    |                          |  |
| GC/MS FRACTION – PESTICIDES                          |                           |                           |                          |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 1P. Aldrin<br>(309-00-2)                             |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 2P. α-BHC<br>(319-84-6)                              |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 3P. β-BHC<br>(58-89-9)                               |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 4P.<br>gamma-BHC<br>(58-89-9)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 5P. δ-BHC<br>(319-86-8)                              |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 6P. Chlordane<br>(57-74-9)                           |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 7P. 4,4'-DDT<br>(50-29-3)                            |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 8P. 4,4'-DDE<br>(72-55-9)                            |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 9P. 4,4'-DDD<br>(72-54-8)                            |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 10P. Dieldrin<br>(60-57-1)                           |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 11P. α-<br>Endosulfan<br>(115-29-7)                  |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 12P. β-<br>Endosulfan<br>(115-29-7)                  |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 13P. Endosulfan<br>Sulfate<br>(1031-07-8)            |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |
| 14P. Endrin<br>(72-20-8)                             |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |             |                            |                         |                          |  |

| Part C – Continued                                   |                           |                           |                          |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
|--|---------------------------|---------------------------|--------------------------|---------------------------|------|---|------|---|------|--------------------------|---------------------|------------|---------------------------|------|--------------------------|
| 1.<br>POLLUTANT<br>And CAS NO.<br><br>(if available) | 2.<br>MARK "X"            |                           |                          | 3.<br>EFFLUENT            |      |   |      |   |      |                          | 4.<br>UNITS         |            | 5.<br>INTAKE (optional)   |      |                          |
|  | a.<br>Testing<br>Required | a.<br>Believed<br>Present | b.<br>Believed<br>Absent | a.<br>Maximum Daily Value |      | b. Maximum 30-Day<br>Value (if available) |      | c. Long-Term Avg.<br>Value (if available) |      | d.<br>No. of<br>Analyses | a.<br>Concentration | b.<br>Mass | a.<br>Long-Term Avg Value |      | b.<br>No. of<br>Analyses |
|  |                           |                           |                          | (1)                       | (2)  | (1)                                       | (2)  | (1)                                       | (2)  |                          |                     |            | (1)                       | (2)  |                          |
|  |                           |                           |                          | Concentration             | Mass | Concentration                             | Mass | Concentration                             | Mass |                          |                     |            | Concentration             | Mass |                          |
| GC/MS FRACTION – PESTICIDES                          |                           |                           |                          |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 15P. Endrin<br>Aldehyde<br>(7421-93-4)               |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 16P. Heptachlor<br>(76-44-8)                         |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 17P. Heptachlor<br>Epoxide<br>(1024-57-3)            |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 18P. PCB-1242<br>(53469-21-9)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 19P. PCB-1254<br>(11097-69-1)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 20P. PCB-1221<br>(11104-28-2)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 21P. PCB-1232<br>(11141-16-5)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 22P. PCB-1248<br>(12672-29-6)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 23P. PCB-1260<br>(11096-82-5)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 24P. PCB-1016<br>(12674-11-2)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |
| 25P. Toxaphene<br>(8001-35-2)                        |                           |                           | X                        |                           |      |   |      |   |      |                          |                     |            |                           |      |                          |



APPALACHIAN STATES ANALYTICAL, L.L.C.

PO Box 520  
Shelbiana, KY 41562

Pike Technical Services, Inc.  
183 Tollage Creek  
Pikeville, KY 41501

Date Received 11/03/08  
Date Reported 12/22/08  
Order Number 2008-11394

ATTN: Tom Bow or Bill Justice

| TEST DESCRIPTION | RESULT             | UNITS | METHOD    | MDL   | DATE       | TECH |
|------------------|--------------------|-------|-----------|-------|------------|------|
| Fraction         | 2008-11394001      |       |           |       |            |      |
| Sample I.D       | Matt/Co 836-9027   |       |           |       |            |      |
| Date Sampled     | 11/03/2008         |       |           |       |            |      |
| Hardness         | 393.89             | mg/l  | SM 2340B  | 0.02  | 12/15/2008 | SC   |
| Antimony, Total  | <0.002             | mg/l  | SM 3113 B | 0.002 | 12/20/2008 | SC   |
| Arsenic, Total   | <0.001             | mg/l  | SM 3113 B | 0.001 | 12/18/2008 | SC   |
| Beryllium, Total | <0.005             | mg/l  | SM 3111 D | 0.005 | 12/18/2008 | SC   |
| Cadmium, Total   | <0.005             | mg/l  | SM 3111 B | 0.005 | 12/15/2008 | SC   |
| Chromium, Total  | <0.001             | mg/l  | SM 3113 B | 0.001 | 12/19/2008 | SC   |
| Copper, Total    | <0.01              | mg/l  | SM 3111 B | 0.01  | 12/15/2008 | SC   |
| Lead, Total      | <0.05              | mg/l  | SM 3111 B | 0.05  | 12/15/2008 | SC   |
| Nickel, Total    | <0.005             | mg/l  | SM 3111 B | 0.005 | 12/15/2008 | SC   |
| Selenium, Total  | <0.002             | mg/l  | SM 3113 B | 0.002 | 12/16/2008 | SC   |
| Silver, Total    | <0.01              | mg/l  | SM 3111 B | 0.01  | 12/15/2008 | SC   |
| Thallium, Total  | <0.05              | mg/l  | SM 3111 B | 0.05  | 12/15/2008 | SC   |
| Zinc, Total      | <0.005             | mg/l  | SM 3111 B | 0.005 | 12/15/2008 | SC   |
| Fraction         | 2008-11394002      |       |           |       |            |      |
| Sample I.D       | Matt/Co 836-0351NW |       |           |       |            |      |
| Date Sampled     | 11/03/2008         |       |           |       |            |      |
| Hardness         | 428.37             | mg/l  | SM 2340B  | 0.02  | 12/15/2008 | SC   |
| Antimony, Total  | <0.002             | mg/l  | SM 3113 B | 0.002 | 12/20/2008 | SC   |
| Arsenic, Total   | <0.001             | mg/l  | SM 3113 B | 0.001 | 12/18/2008 | SC   |
| Beryllium, Total | <0.005             | mg/l  | SM 3111 D | 0.005 | 12/18/2008 | SC   |
| Cadmium, Total   | <0.005             | mg/l  | SM 3111 B | 0.005 | 12/15/2008 | SC   |
| Chromium, Total  | <0.001             | mg/l  | SM 3113 B | 0.001 | 12/19/2008 | SC   |
| Copper, Total    | <0.01              | mg/l  | SM 3111 B | 0.01  | 12/15/2008 | SC   |
| Lead, Total      | <0.05              | mg/l  | SM 3111 B | 0.05  | 12/15/2008 | SC   |
| Nickel, Total    | <0.005             | mg/l  | SM 3111 B | 0.005 | 12/15/2008 | SC   |
| Selenium, Total  | <0.002             | mg/l  | SM 3113 B | 0.002 | 12/16/2008 | SC   |
| Silver, Total    | <0.01              | mg/l  | SM 3111 B | 0.01  | 12/15/2008 | SC   |
| Thallium, Total  | <0.05              | mg/l  | SM 3111 B | 0.05  | 12/15/2008 | SC   |
| Zinc, Total      | <0.005             | mg/l  | SM 3111 B | 0.005 | 12/15/2008 | SC   |

Submitted By:

*Sharon Chapman*

I DO HEREBY ATTEST THAT THIS IS A TRUE  
AND EXACT COPY OF THE ORIGINAL DOCUMENT

*Kristi Osborne*  
NOTARY PUBLIC  
MY COMMISSION EXPIRES 1-11-12  
STATE OF COMMISSION KENTUCKY



APPALACHIAN STATES ANALYTICAL, L.L.C.

PO Box 520  
Shelbiana, KY 41562

Pike Technical Services, Inc.  
183 Tollage Creek  
Pikeville, KY 41501

Date Received 12/11/08  
Date Reported 12/23/08  
Order Number 2008-11400

ATTN: Tom Bow or Bill Justice

| TEST DESCRIPTION | RESULT           | UNITS | METHOD            | MDL    | DATE       | TECH |
|------------------|------------------|-------|-------------------|--------|------------|------|
| Fraction         | 2008-11400001    |       |                   |        |            |      |
| Sample I.D       | Matt/Co 836-9027 |       |                   |        |            |      |
| Date Sampled     | 12/11/2008       |       |                   |        |            |      |
| Cyanide, Total   | <0.01            | mg/l  | SM 4500CN-C,E0.01 |        | 12/17/2008 | SC   |
| Phenols          | <0.02            | mg/l  | EPA 420.1, Hach   | 0.0017 | 12/20/2008 | SC   |
| Mercury, Total   | <0.0002          | mg/l  | SM 3112 B         | 0.0002 | 12/13/2008 | TT   |
| Fraction         | 2008-11400002    |       |                   |        |            |      |
| Sample I.D       | Matt/Co 836-0351 |       |                   |        |            |      |
| Date Sampled     | 12/11/2008       |       |                   |        |            |      |
| Cyanide, Total   | <0.01            | mg/l  | SM 4500CN-C,E0.01 |        | 12/17/2008 | SC   |
| Phenols          | <0.02            | mg/l  | EPA 420.1, Hach   | 0.0017 | 12/20/2008 | SC   |
| Mercury, Total   | <0.0002          | mg/l  | SM 3112 B         | 0.0002 | 12/13/2008 | TT   |

Submitted By:

*Shanna Chapman*

I DO HEREBY ATTEST THAT THIS IS A TRUE  
AND EXACT COPY OF THE ORIGINAL DOCUMENT

*Justin O'Brien*  
NOTARY PUBLIC  
MY COMMISSION EXPIRES 1-11-12  
STATE OF COMMISSION KENTUCKY





APPALACHIAN STATES ANALYTICAL, L.L.C.

PO Box 520  
Shelbiana, KY 41562

Pike Technical Services, Inc.  
183 Tollage Creek  
Pikeville, KY 41501

Date Received 11/03/08  
Date Reported 11/05/08  
Order Number 2008-10035

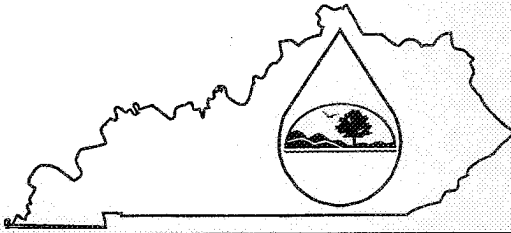
ATTN: Tom Bow or Bill Justice

| TEST DESCRIPTION       | RESULT             | UNITS    | METHOD        | MDL  | DATE       | TECH |
|------------------------|--------------------|----------|---------------|------|------------|------|
| Fraction               | 2008-10035001      |          |               |      |            |      |
| Sample I.D             | Matt/Co 836-9027   |          |               |      |            |      |
| Date Sampled           | 11/03/2008         |          |               |      |            |      |
| Flow                   | NDP                | cfs      |               |      | 11/03/2008 | CLT  |
| Total Suspended Solids | 133                | mg/l     | SM 2540D      | 1    | 11/04/2008 | JKB  |
| Iron, Total            | <0.03              | mg/l     | SM 3111 B     | 0.03 | 11/04/2008 | SC   |
| Alkalinity             | 169                | mg/l     | EPA 310.2     | 1    | 11/04/2008 | TT   |
| Acidity                | <1                 | mg/l     | SM 2310B      | 1    | 11/04/2008 | TT   |
| Manganese, Total       | <0.01              | mg/l     | SM 3111 B     | 0.01 | 11/04/2008 | SC   |
| Specific Conductance   | 727                | umhos/cm | SM 2510 B     | 1    | 11/05/2008 | TV   |
| Sulfate                | 299                | mg/l     | SM 426 C      | 1    | 11/04/2008 | TT   |
| Temperature            | NDP                | C        | SM 2550 B     | 0.4  | 11/03/2008 | CLT  |
| pH, Lab                | 7.24               | std      | SM 4500 H+ -B | 0.01 | 11/04/2008 | TV   |
| Fraction               | 2008-10035002      |          |               |      |            |      |
| Sample I.D             | Matt/Co 836-0351NW |          |               |      |            |      |
| Date Sampled           | 11/03/2008         |          |               |      |            |      |
| Flow                   | NDP                | cfs      |               |      | 11/03/2008 | CLT  |
| Total Suspended Solids | 14                 | mg/l     | SM 2540D      | 1    | 11/04/2008 | JKB  |
| Iron, Total            | <0.03              | mg/l     | SM 3111 B     | 0.03 | 11/04/2008 | SC   |
| Alkalinity             | 150                | mg/l     | EPA 310.2     | 1    | 11/04/2008 | TT   |
| Acidity                | <1                 | mg/l     | SM 2310B      | 1    | 11/04/2008 | TT   |
| Manganese, Total       | 0.05               | mg/l     | SM 3111 B     | 0.01 | 11/04/2008 | SC   |
| Specific Conductance   | 840                | umhos/cm | SM 2510 B     | 1    | 11/05/2008 | TV   |
| Sulfate                | 357                | mg/l     | SM 426 C      | 1    | 11/04/2008 | TT   |
| Temperature            | NDP                | C        | SM 2550 B     | 0.4  | 11/03/2008 | CLT  |
| pH, Lab                | 6.82               | std      | SM 4500 H+ -B | 0.01 | 11/04/2008 | TV   |

Submitted By:

*Shannon Chapman*

I DO HEREBY ATTEST THAT THIS IS A TRUE  
AND EXACT COPY OF THE ORIGINAL DOCUMENT  
*Kristi Osborne*  
NOTARY PUBLIC  
MY COMMISSION EXPIRES 1-11-12  
STATE OF COMMISSION KENTUCKY



# Kentucky Pollutant Discharge Elimination System (KPDES)

## High Quality Water Alternative Analysis

The Antidegradation Implementation Procedures outlined in 401 KAR 5:030, Section 1(3)(b)5 allows an applicant who does not accept the effluent limitations required by subparagraphs 2 and 3 of 5:030, Section 1(2)(b) to demonstrate to the satisfaction of the Environmental and Public Protection Cabinet that no technologically or economically feasible alternatives exist and that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the water is located. The approval of a POTW's regional facility plan pursuant to 401 KAR 5:006 shall demonstrate compliance with the alternatives analysis and socioeconomic demonstration for a regional facility. This demonstration shall also include this completed form and copies of any engineering reports, economic feasibility studies, or other supporting documentation

### I. Permit Information

|                        |                        |                       |                   |
|------------------------|------------------------|-----------------------|-------------------|
| Facility Name:         | Matt/Co, Inc.          | KPDES NO.:            | Pending KY0107778 |
| Address:               | 439 Meadows Branch     | County:               | Floyd             |
| City, State, Zip Code: | Prestonsburg, KY 41653 | Receiving Water Name: | Merritt Branch    |

### II. Alternatives Analysis - For each alternative below, discuss what options were considered and state why these options were not considered feasible.

1. **Discharge to other treatment facilities.** Indicate which treatment works have been considered and provide the reasons why discharge to these works is not feasible.

Reference Attached II, Alternatives Analysis, Item 1.

2. **Use of other discharge locations.** Indicate what other discharge locations have been evaluated and the reasons why these locations are not feasible.

Reference Attached II, Alternatives Analysis, Item 2.

## **II. Alternatives Analysis - continued**

2. **Water reuse or recycle.** Provide information about opportunities for water reuse or recycle at this facility. If water reuse or recycle is not a feasible alternative at this facility, please indicate the reasons why.

**Reference Attached II, Alternatives Analysis, Item 3.**

4. **Alternative process or treatment options.** Indicate what process or treatment options have been evaluated and provide the reasons they were not considered feasible.

**Reference Attached II, Alternatives Analysis, Item 4.**

## **II. Alternatives Analysis - continued**

**5. On-site or subsurface disposal options.** Discuss the potential for on-site or subsurface disposal. If these options are not feasible, then please indicate the reasons why.

**Reference Attached II, Alternatives Analysis, Item 5.**

**6. Evaluation of any other alternatives to lowering water quality.** Describe any other alternatives that were evaluated and provide the reasons why these alternatives were not feasible.

**Reference Attached II, Alternatives Analysis, Item 6.**

### **III. Socioeconomic Demonstration**

State the positive and beneficial effects of this facility on the existing environment or a public health problem.

**Reference Attached III, Socioeconomic Demonstration, Item 1.**

2. Describe this facility's effect on the employment of the area

**Reference Attached III, Socioeconomic Demonstration, Item 2.**

3. Describe how this facility will increase or avoid the decrease of area employment.

**Reference Attached III, Socioeconomic Demonstration, Item 3.**

4. Describe the industrial or commercial benefits to the community, including the creation of jobs, the raising of additional revenues, the creation of new or additional tax bases.

**Reference Attached III, Socioeconomic Demonstration, Item 4.**

5. Describe any other economic or social benefits to the community.

**Reference Attached III, Socioeconomic Demonstration, Item 5.**

### III. Socioeconomic Demonstration - continued

- |  | <u>Yes</u>                          | <u>No</u>                           |
|--|-------------------------------------|-------------------------------------|
| 6. Will this project be likely to change median household income in the county?        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 7. Will this project likely change the market value of taxable property in the county? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 8. Will this project increase or decrease revenues in the county?                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 9. Will any public buildings be affected by this system?                               | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

10. How many households will be *economically* or *socially* impacted by this project? 15

**Reference Attached III, Socioeconomic Demonstration, Item 10.**

11. How will those households be *economically* or *socially* impacted? (For example, through creation of jobs, educational opportunities, or other social or economic benefits.)

**Reference Attached III, Socioeconomic Demonstration, Item 11.**

- |   | <u>Yes</u>               | <u>No</u>                           |
|---|--------------------------|-------------------------------------|
| 12. Does this project replace any other methods of sewage treatment to existing facilities?<br>(If so describe how) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Reference Attached III, Socioeconomic Demonstration, Item 12.**

- |  | <u>Yes</u>                          | <u>No</u>                |
|--|-------------------------------------|--------------------------|
| 13. Does this project treat any existing sources of pollution more effectively?<br>(If so describe how.) | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Reference Attached III, Socioeconomic Demonstration, Item 12.**



### III. Socioeconomic Demonstration - continued

Yes

No

- Does this project eliminate any other sources of discharge or pollutants?  
(If so describe how.)



**Reference Attached III, Socioeconomic Demonstration, Item 14.**


15. How will the increase in production levels positively affect the socioeconomic condition of the area?

**Reference Attached III, Socioeconomic Demonstration, Item 15.**

16. How will the increase in operational efficiency positively affect the socioeconomic condition of the area?

**Reference Attached III, Socioeconomic Demonstration, Item 16.**

**IV Certification:** I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

|                 |   |                |                |
|-----------------|---|----------------|----------------|
| Name and Title: | Clark Pergrem, President  | Telephone No.: | (606) 886-0611 |
| Signature:      |  | Date:          | March 24, 2009 |

## II. Alternative Analysis

- Item 1     Alternative treatment works have been investigated. The nearest water treatment system according to the Prestonsburg Utilities is at Prestonsburg, which is approximately 8.2 miles away. It would cost approximately \$76,560 at \$40/foot to contract the installation of 1,914 feet of collection lines and another \$1,806,160 to send the discharge to the nearest treatment facility at Prestonsburg. This would be a total cost of \$1,882,720 to collect and transport the discharge to the Prestonsburg facility. A sedimentation pond would also need to be installed at the Prestonsburg facility to remove the silt from the discharges. Construction and maintenance of this sedimentation would cost approximately \$40,000. Total costs to collect, transport and treat the discharges in this manner would exceed \$1,922,720.

Another alternative would consist of transporting the discharge by trucks. It would cost approximately \$76,560 at \$40/foot to contract the installation of 900 feet of collection lines to the storage tanks. For a 25 year, 6 hour storm event the runoff from the permit area is approximately 4,580,793 gallons per hour. The client would have to purchase 180 storage tanks for the 6 hour storm event which would cost approximately \$23,212,080 at \$128,956 per 150,000 gallon storage tank. To transport the discharge to the Prestonsburg facility the client would have to purchase an 8,000 gallon tank truck. The tank truck would cost approximately \$130,000 and would take 1 hour to fill. The tank truck would have to make 3,375 trips to drain the discharge from the 25 year, 6 hour storm event. Total costs to collect and transport the discharges in this manner would exceed \$23,418,640.

- Item 2     Merritt Branch is the only creek which can directly receive the discharge from this operation along Route 1428. As stated previously, to collect and gather the discharge from this area would cost \$76,560 at \$40.00 a foot for piping. This cost is exclusive of the \$1,882,720 to transport to Prestonsburg.

Another alternative would be to pipe the water to a non-supporting watershed. According to the summary of 2006 305(b) List of Impaired Waters the nearest non-supporting watershed is Buffalo Creek. It would cost approximately \$76,560 at \$40/foot to contract the installation of 1,914 feet of collection lines and another \$815,600 to send the discharge to Johns Creek. This would be a total cost of \$892,160 to collect and transport the discharge to Buffalo Creek. To transport the discharge to Buffalo Creek the client would have to purchase a high powered pump to lift the water 720 vertical feet. One pump would cost approximately \$40,000 and can lift approximately 100 vertical feet. You would have to purchase 7 pumps and place them every 100 feet to transport the discharge to Buffalo Creek costing \$280,000. Total costs to collect, transport and pump the discharges in this manner would exceed \$1,172,160.

The transporting of water to Buffalo Creek would have a negative impact on the watershed. Causing more detrimental environmental impact that is not needed. Flooding will occur within the watershed destroying homes, property, roads and natural resources. The streams within a reasonable distance empty into the Levisa Fork. This added expense as an alternative is not viable since Levisa will eventually receive the discharges anyway.

- Item 3      Water could and will be reused for dust suppression at the project site; however, the amount used is minimal when compared to the total discharge. The total drainage area is approximately 94 acres with a discharge of 65,077 gallons per minute or approximately 3,904,666 gallons per hour.

While a portion of the water could be used for dust suppression, it is generally required only during dry times when discharges are low or non-existent. Again, the amount of water used would be minimal. A water truck can carry approximately 5,000 gallons of water. Roads, ect. are generally watered twice a day during dry times. This equates to no other water is needed for recycling or reuse with the operation. You would have approximately 23,417,996 gallons of excess water that can't be reused.

- Item 4      The cost of purchasing and installing a small package plant at the site would be approximately \$50,000 and the collection system of 36,000. The cost to operate and maintain this facility 24 hours a day, 7 days a week would be approximately \$11,500/ month. The plant site could be limited to an acre, but the holding facility could be as large as 10% of the drainage area or larger, since the runoff has to be treated in its entirety. The cost of constructing such a facility would run in the hundreds of thousands of dollars, since it would be required to meet all MSHA standards. The removal cost of the plant might well be at its salvage price, however the cost of eliminating the embankment and void of the holding facility would again run in the hundred thousand dollar range.

- Item 5      The only way to store the discharge on site is with a pond. To maintain the water on site without a discharge would require one very large pond. The pond would have to be built in the stream thus impacting a vast portion of the stream and causing a more detrimental environmental impact that is not needed. It is nearly impossible to construct a facility that would never discharge. The cost of this structure would cost \$1,000,000 for construction and stream mitigation.

- Item 6      Other alternatives reviewed include reducing the standards for discharge or avoiding the project altogether.

By reducing the water quality limits, the project would experience increases in costs and additional time spent. A larger in-stream pond would have to be constructed which would have a substantial negative impact on stream and could cost as much as \$1,000,000 for construction and stream mitigation of each. Large volumes of water would need to be stored within this structure producing more danger if a structural failure were to occur. The costs of removing these ponds would also be much greater (approximately \$100,000 per pond).

Another option to consider is to avoid the project altogether. This would have many negative affects on the area including reduction of employment and the loss of valuable coal that currently keeps Kentucky's electric costs the lowest in the nation. Avoiding this operation would not only affect coal miners but also the many businesses that provide support to the mining industry. This would eliminate the 15 new jobs. It would cancel indirect affects on approximately 50 local suppliers and their families. It would do away with the 0.5 millions dollars of coal severance taxes and the income taxes which come directly into both the state and local economy.

### III. Socioeconomic Demonstration

- Item 1 This operation will provide sediment control facilities in areas where there have been previous mining. Approximately 60 acres of the proposed permit area has been previously impacted by pre-law mining and 60 acres of the proposed permit area has been previously impacted by logging. This facility will control the discharge of an area covering approximately 46.38 acres.

The movement of sediment is mostly unabated within the area but the proposed mining operation will create and maintain sediment control structures in the form of ponds. These will treat existing problems and reduce or eliminate their effect on the environment.

- Item 2 The proposed mine would be a new mine with all new personnel needed for operation. This mining operation would provide employment for approximately 15 men. These jobs provide higher wages than other industry jobs in Floyd County. The average weekly wage in the mining industry for Floyd County is \$778.76. The average weekly wage for all industries in Floyd County is \$545.49 (U.S. Bureau of Labor Statistics).

- Item 3 The economy of Floyd County is dependent on the mining industry. The mining industry in Floyd County employs nearly 580 employees. The new mine will directly provide employment for approximately 15 men. This would give out-of-work miners and associated personnel an opportunity for employment while also providing possibilities for entry-level personnel to gain experience in the mining industry. This will also affect the industries that supply the material and equipment needed for mining, as well as engineering services and training that are needed for the mining industry for employment of as many as 75 other people. The unemployment rate in Floyd County is approximately 6.5%.

- Item 4 Each new mine proposed will solidify the employment for people who may currently be employed looking for better paying jobs in the mining industry. This would allow experienced personnel to advance from current positions thus opening up new positions for less experienced miners who need employment. The proposed life of this mine is 5 years with additions possible. Approximately 219,398 tons are expected to be recovered from this mine which will generate around \$383,947 in severance taxes. Floyd County will receive approximately \$57,592 (15%) of these taxes to be used for local education, health care, and other city and county projects. The unemployment rate in Floyd County will rise approximately 2% without this job.

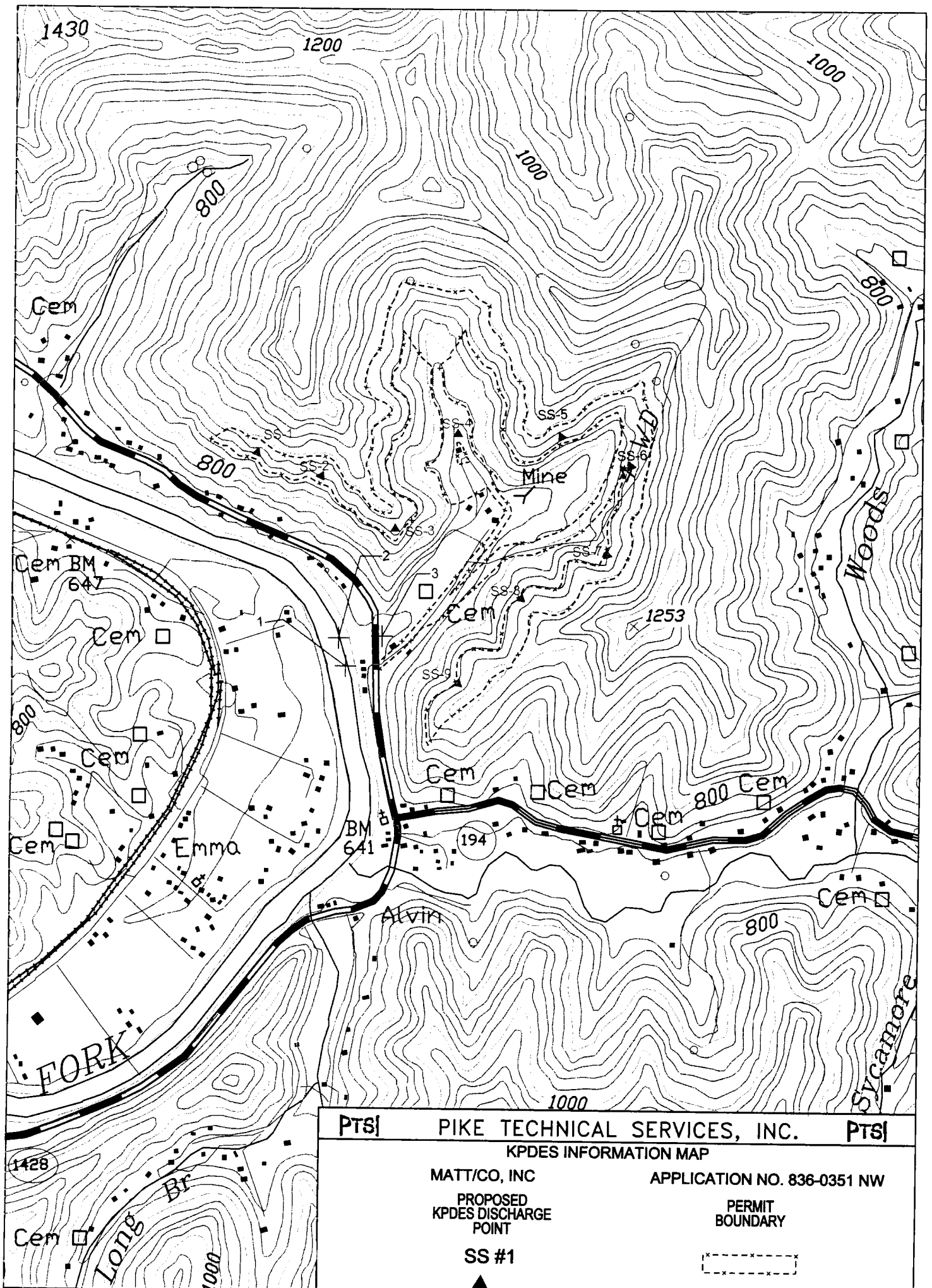
New revenue for Floyd County would also be generated from local income, property and sales taxes. The average person will pay approximately 30% of there income in federal taxes. The proposed job will employ 15 men that will pay approximately \$168,212 in federal taxes. The facilities will create additional revenue to the local businesses of the area through supplies and services needed for the mining operation and fulfilling the needs of the employees of the operation. The proposed mining will increase economic benefits to the area and will perpetuate those already in existence.

- Item 5     The jobs this proposed mine will create provide some of the highest wages in Floyd County. With an average weekly wage of \$778.76, a Floyd County miner makes approximately \$233.00 dollars more on the week than the average industry worker in Floyd County. The creation of these jobs also allows taxes to be collected spurring community development and the creation of non-coal related jobs. Severance taxes can be used to improve schools, water lines, sewage facilities and other community resources of Floyd County.
  
- Item 10    The facility is expected to employ approximately 15 men. Thus it will impact the 15 households of those men plus the households of at least another 50 local business owners in Floyd and surrounding counties and their employees that provide goods and services to the facility. The average weekly wage in the mining industry for Floyd County is \$778.76. The average weekly wage for all industries in Floyd County is \$545.49 (U.S. Bureau of Labor Statistics).
  
- Item 11    The households of the 15 employees will be impacted by the higher than average incomes provided by the jobs. The average weekly wage in the mining industry for Floyd County is \$778.76. The average weekly wage for all industries in Floyd County is \$545.49 (U.S. Bureau of Labor Statistics). Another 75 households of the business owners and workers who provide services for the mine will be impacted by the increased revenue this mine will provide to the existing businesses. The employees will be impacted positively with a more secure employment outlook due to the increased revenue.
  
- Item 12    There are no other existing sewage treatment facilities located within the area to replace. The nearest facility is 8.2 miles away.
  
- Item 13    Any discharges that exist in the proposed mining area because of 60 acres of pre-law mining and 60 acres of logging activities along with all other discharges in the area will now be treated under this operation.

- Item 14 This area has been logged and a portion of the Broas seam has been previously contour mined by pre-law operations and the Richardson seam has been mountain top mined. Approximately. Drainage that flows through previously mined areas and areas that have been logged will flow through proposed sediment ponds. Thus these current and anticipated discharges will be treated in the proposed structures.
- Item 15 The increase in productivity levels not only provides jobs in Floyd County at a higher than average wage (\$778.76 for mining jobs vs. \$545.49 for other industries) but will create additional revenue for the businesses of the area. The additional revenue of the local businesses and the severance tax dollars (approximately \$500,000) generated by the project will provide the local government with additional tax revenues. These can be utilized for public safety including law enforcement, fire control, and ambulance services while also aiding in the industrial and economic development of the area
- Item 16 By conducting the preponderance of this operation through underground mining, we are disturbing much less surface area and accessing the coal in a more environmentally friendly way. Discharges will be reduced drastically as the surface area involved is only a fraction of what would be involved in a surface area mining operation. Efficiency is increased as much less overburden needs to be removed and costs can be kept down thus providing more money to be available for the workers and in turn the economy of the area when the workers purchase goods such as homes, automobiles and food.

The face-up portion of this permit will return mine areas to A.O.C. while reestablishing approximate original drainage patterns and vegetation.







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